



**CALIFORNIA WORKFORCE INVESTMENT BOARD
GREEN COLLAR JOBS COUNCIL
MEETING NOTICE**



Larry Gotlieb
Chair

Chris Essel
Vice Chair

**Radisson Hotel
500 Leisure Lane
Sacramento, CA**

**Tuesday, March 24, 2009
9:30 a.m. – 11:30 a.m.**

Arnold
Schwarzenegger
Governor

Barbara Halsey
Director

AGENDA

- I. Introduction**
- II. Action: Approval of March 4, 2009 Meeting Minutes**
- III. Action: Approval of Green Collar Jobs Council Draft Annual Report**
- IV. Chair/Executive Director Report**
- V. General Discussion and Next Steps**
- VI. Public Comment**

Meeting conclusion time is an estimate; meeting may end earlier subject to completion of agenda items and/or approved motion to adjourn. In order for the Committee to provide an opportunity for interested parties to speak at the public meetings, public comment may be limited. Written comments provided to the Committee must be made available to the public, in compliance with the Bagley-Keene Open Meeting Act, §11125.1, with copies available in sufficient supply. Individuals who require accommodations for their disabilities (including interpreters and alternate formats) are requested to contact the California Workforce Investment Board staff at (916) 324-3425 at least ten days prior to the meeting. TTY line: (916) 324-6523. Please visit the California Workforce Investment Board website at <http://www.calwia.org> or contact Daniel Patterson for additional information.

**CALIFORNIA WORKFORCE INVESTMENT BOARD
GREEN COLLAR JOBS COUNCIL
March 4, 2009**

KB Homes Corporate Offices
2420 Del Paso Rd. Suite 200
Sacramento, CA 95834

MEETING SUMMARY

I. Welcome and Introduction of Council Members

Barry Sedlik, Chair
Barbara Halsey
Jaime Fall for Doug Hoffner
Jamil Dada
Willie Washington
William Ing for Kim Belshé
Gregg Albright for Dale Bonner
Tim Rainey for Art Pulaski
Shannon McKinley for Sandré Swanson
Steve Saxton
Jose Milan for Jack Scott

Panama Bartholomy for Karen Douglas
Marty Keller
Stewart Knox
Audrey Taylor
Brian McMahon
Sharon Anderson for James Goldstene
V. Manuel Perez for Speaker Karen Bass
Cesar Diaz for Bob Balgenorth
Dennis Guido
Timothy Simon

Chair, Barry Sedlik, opened the meeting. He reiterated that the group wanted to reconvene quickly to respond to the incoming federal stimulus funds and encouraged the group to be interactive.

AB 1394 (Bass) was recently introduced and is drawing attention from the legislature. This bill would authorize the GCJC to coordinate certain grants and workforce training funds available to California under the American Recovery & Reinvestment Act.

Assemblymember V. Manual Perez attended the New Middle Class Initiative Workshop with Vice President Biden on behalf of Speaker Bass. In this National arena, he reiterated that CA is at the forefront of green collar jobs and invited Federal representatives to see for themselves. Also, the Assembly Stimulus, Economic Recovery, and Jobs (SERJ) Task Force will be gathering data to develop a 24-month blueprint/business plan/strategic plan/economic recovery plan for CA green jobs.

Barbara Halsey reviewed the agenda and explained that staff will be collecting action items to post on the "purple wall" for the afternoon discussion.

II. Action: Approved the Feb. 11, 2009, Meeting Summary

III. Economic Stimulus and State Activities

The group reviewed the handout on the [American Recovery & Reinvestment Act \(ARRA\): Overall Breakdown & California's Allocation](#). Then Council members in a round-robin format discussed how the ARRA is influencing their organization's function.

Ian Kim, representing the California Green Stimulus Coalition, offered to serve as a resource to the Council. They include several different partners are organized into focused team. They are looking at long term environmental goals, high quality jobs with upper mobility, and access for disadvantaged communities. We have examples of successes to share.

IV. Immediate Opportunities

Tim Rainey, Cesar Diaz & Debra Chaplan, State Building and Construction & Trades, California Labor Federation, AFL-CIO

Their presentation, [The Building Trades: Training for California's Green Future](#), provided an overview of the organization and described the apprenticeship programs. They are focusing on "green skills" not necessarily green jobs. They referenced www.sbctc.org and www.buildingc3.com to find additional information.

Theresa Milan, & John Carrese, Centers of Excellence Economic & Workforce Development California Community Colleges

Their presentation, [Green Industries and Jobs in California](#), provided a summary of their statewide study to define green industries, occupation and educational programs. For more information about the organization visit www.coecccc.net.

Kirsten Riden & Jennie Helphrich, California State University, Sacramento, College for Continuing Education Sustainable, Valuable "Green & Gold"

The California State Universities are offering various green training programs beginning this Spring and will continue through Summer and Fall. They have successfully partnered with other organizations to tailor their programs and services.

Bonnie Graybill, Employment Development Department, Labor Market Information Division (LMID)

In the presentation, [Green Jobs for the Economy...the workforce...the planet](#), Ms. Graybill highlighted LMID's data on green jobs that exist today and recommended strategies for developing a green workforce.

Panama Bartholomy, California Energy Commission

Mr. Bartholomy provided an overview of their efforts to build green partnerships around their Advanced Transportation efforts with their "AB 118 Workforce Development Framework Development." CEC is already working with LMID, COECCC, EDD, and CWIB for workforce development. Their efforts were highlighted here as a model for building partnership in other areas.

V. General Discussion/Next Steps

Barbara led the group in a discussion about what the Council should focus on in the short and long term. See attachment for the results of that discussion and the Council's next steps.

DRAFT

California Workforce Investment Board REPORT TO THE LEGISLATURE ON THE GREEN COLLAR JOBS ACT AND ACTIVITIES OF THE GREEN COLLAR JOBS COUNCIL	2009
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Introduction

In accordance with The California Green Collar Jobs Act of 2008 (AB 3018), the California Workforce Investment Board (CWIB) submits the Green Collar Jobs Council's (Council) inaugural progress report to the Legislature.

This report provides highlights on the activities of the Council since Members were named on February 10, 2009, and outline the next steps it will be undertaking. While the Council was established to prepare a long-term strategy for addressing green collar jobs potential in the state, the Council has seized the opportunity to mobilize efforts to act as a clearinghouse for the impending economic stimulus allocations to state agencies and departments. Since its announcement on February 10th, the Council has convened three times. Council members and CWIB staff have been working on a statewide inventory of the following:

1. Economic stimulus funds relative to green collar workforce training and preparation sources
2. Existing green collar workforce training programs among community colleges, union-based apprenticeship programs, and other service providers
3. Existing and near-term green collar occupations and employment projections

The Council is also developing action plans on a 30, 60, and 90 day basis relative to the best use of stimulus training and workforce funds to maximize job creation statewide as quickly as possible.

Background

Continuing California's pledge to combat global warming and grow a green economy, in 2008, Governor Arnold Schwarzenegger signed into law AB 3018 by Speaker Emeritus Fabian Nuñez, Assembly Speaker Karen Bass, and Assembly Member Kevin De Leon. AB 3018 requires the CWIB to convene the Council for the purpose of developing a comprehensive approach to addressing California's emerging workforce needs specifically with its budding "green" economy. The Council, as an intergovernmental partnership, is charged with specific tasks related green workforce development. The Council will:

- Develop a comprehensive array of programs, strategies, and resources to address the workforce needs that accompany California's growing green economy.

- Assist in developing and linking green collar job opportunities with workforce development training opportunities;
- Create public, private, and nongovernmental partnerships to expand the state's workforce development programs, network, and infrastructure; and
- Establish job training programs in the clean and green technology sectors.

Moreover, AB 3018 requires the CWIB to apply a sector strategy approach in responding to industry sector workforce and economic development needs. The purpose of this strategy is to ensure industry has a qualified workforce while providing opportunities for career advancement for all Californians. This requirement is complimentary to the responsibility given to the Board under the Workforce Training Act of 2007 (SB 293), wherein the Board was charged with developing a comprehensive statewide workforce strategy.

Membership

The Council was appointed by CWIB Chairman, Mr. Larry Gotlieb, in accordance with AB 3018 and in consultation with Governor Schwarzenegger's Administration, Assembly Speaker Karen Bass's Office, stakeholders, and members of the CWIB. A complete list of the Council's membership is provided in Attachment 1.

Activities

Meetings

The Council has conducted three meetings:

- February 11, 2009
- March 4, 2009
- March 24, 2009

February 11, 2009

The focus of this meeting was to orient the Council members to their charge, putting it into the context of the work of the California Workforce Investment Board, provide them with a snapshot of the Green Economy from an economic development and labor market viewpoint, and to acquaint them with agencies, departments and organizations that are currently engaged in efforts related to this economic opportunity.

The State Board's Director, Barbara Halsey, provided an overview on the State Board's strategic planning framework and summarized the formation of Council. There were two panel presentations:

1. The Current State of Green Initiatives

The panel presented the current initiatives, regulatory plans, and partnership development as part of their scoping plans. In addition, California Workforce Association (CWA) provided a matrix of Local Workforce Investment Boards involvement in green jobs initiatives (See Attachment 2). This panel consisted of California Environmental Protection Agency (Cal/EPA), Sacramento Employment and Training Agency (SETA), South Bay Workforce Investment Board (WIB), California Energy Commission (CEC), California Public Utilities Commission (CPUC), and Northern Rural Training and Employment Consortium (NoRTEC).

2. The Future of the Green Economy in CA

The panel discussed the importance of green training programs, successful partnerships, and the manner that green jobs and industries cut across industry sectors. Green Economy's growing products, services, businesses, and jobs in California were the key areas mentioned and talked about by the panelists and the Council. This panel consisted of Collaborative Economics, Labor Market Information Division (LMID), Employment Development Department (EDD), Chico Electric, Sacramento Area Commerce & Trade Organization (SACTO), and Anschutz Entertainment Group (AEG).

Lastly, Ms. Halsey presented the Green Collar Jobs Council One-Page Business Plan for consideration as a tool to plan the work of the Council over the next 12 to 18 months (See Attachment 3). After discussion, the Council agreed that its focus will be on immediate needs and agreed to reconvene in three weeks. Of particular interest to the Council was the impending federal stimulus package and its potential impact on opportunities for inter-organizational collaboration and funding that may impact on the green economy.

March 4, 2009

The purpose of this meeting was to provide the Council with a deeper understanding of the American Reinvestment and Recovery Act (ARRA), the current state of Green Jobs in California, and introduce them to education programs, apprenticeship training opportunities, and philanthropic efforts supporting the development of a qualified

workforce to meet the needs of this economy. Additionally, the meeting provided opportunity for the Council to begin its deliberative work and establish near term, time specific action items to be completed by staff.

After review and approval of the minutes of the February 11, 2009 meeting summary, the Council meeting consisted of three parts:

1. Economic Stimulus and State Activities

This session provided the Council with a handout on the ARRA which illustrated the breakdown of the funding allocations and provided California's allocation by area of focus and program. Council members, in a round-robin format, discussed how the Recovery Act is influencing their organization's function.

2. Immediate Opportunities

This agenda item provided the Council baseline information on what green jobs exist now based on an extensive review of existing information conducted by the Employment Development Department's (EDD) Labor Market Information Division (LMID). In addition, LMID staff provided information on those currently unemployed in the state, data on business needs/current job opportunities and recommended strategies for developing a green workforce. Representatives from the California Community College Chancellor's Office, the California Department of Education, the California Building and Trades Association and the California Labor Federation gave the Council overviews of "green" educational and apprenticeship programs currently in existence throughout the state.

3. General Discussions and Next Steps

Synthesizing the information presented for consideration, the Council reviewed and prioritized action items to be accomplished in 10-, 30-, and 60-day timeframes. These action items are:

- Identify economic sectors where Green Collar jobs are expected to grow, allowing the GCJC to concentrate efforts on developing an indepth understanding of these sectors
- Develop and distribute the draft AB 3018 Annual Report for the Legislature to Council members
- Inventory all existing training programs by occupations
- Compile one matrix of green collar jobs
- Map or flowchart players and ARRA funding

- Complete inventory of all ARRA funds and associated timelines impacting their receipt and utilization

The Council acknowledged that there are long term actions that need to be identified, but the most pressing issue is ensuring that the utilization of ARRA funding is effective and appropriately leveraged where possible in support of green collar jobs. The Council's action timeline is depicted in Attachment 4.

March 24, 2009

The focus of this meeting was to provide the Council with work products developed in response to direction given to staff at the March 4th, 2009 meeting. Staff of the CWIB presented the Council with a draft AB 3018 Report to the Legislature and provided updates on the following Council directed activities (10-day objectives):

- List of existing green job training programs by occupations
- Matrix of green collar jobs from EDD's LMID (See Attachment 5)
- Map (and/or flowchart) of stimulus recipients and anticipated job growth impact
- Complete inventory of all related stimulus funds

In addition, an update was provided on the following 30-day objectives:

- Statewide model for weatherization
- Calendar of pertinent events (conferences)
- Progress on identifying gaps in current green jobs related programs
- Analysis of where jobs will be created by the Recovery Act.
- Inventorying resources and how Local Workforce Investment Boards are investing the Recovery Act resources.

Public Participation

The Green Collar Jobs Council meetings have been well attended, with representatives from a variety of organizations in the audience. Attendees have included representatives from Department of Toxic Substances Control, Environmental Defense Fund, Verde Group, California Environmental Protection Agency, California Edge Campaign, California Public Utilities Commission, Local Government Commission, Community Resource Project, Inc., UC Berkeley, Department of Corrections and Rehabilitation, Rising Sun Energy Center, Greenlining Institute, California Department

of Education, California Educational Technology Collaborative, EDD, California Energy Commission, Air Resources Board, California Community Colleges Chancellor's Office, Scientific Conservation, Ella Baker Center, Greater Sacramento Urban League, Small Business Advocate, San Francisco Bay Center of Excellence California Community Colleges, Business Transportation and Housing Agency, California State University Sacramento, State Building & Construction Trades Council of California, and Country Welfare Directors Association.

Additional Activities Underway Related to the Green Collar Jobs Council

Green Partnerships

California Energy Commission (CEC) is proposing a collaborative framework for the implementation of the AB 118 - California Alternative and Renewable Fuel, Vehicle Technology, Clean Air, and Carbon Reduction Act of 2007 – Workforce Development Framework. Proposed are three components: 1) Labor Market Information Development, 2) Regional Industry Sector Plan Development, 3) Training and Education Program Development and Delivery.

CEC envisions working with the CWIB, EDD, CCCCCO, LMID, and other partners on the implementation of these framework components. The development of a robust advanced transportation technology industry in California will require the collaboration of many segments of the state's economic, business, technology, education, and workforce development communities. In order to effectively develop, deploy and coordinate advanced transportation technology workforce programs, the economic assets of the various regions in the State must first be understood. Work completed by the California Economic Strategy Panel (ESP) provides the basis for further exploration. Using one of the products developed by the ESP, the CWIB has under development an Industry Cluster of Opportunity Request for Proposal. As part of its approach to using sector strategies as the framework for workforce development, the CWIB is promoting data-driven planning as the foundation for strategic planning and investment of resources in support of industry responsive workforce initiatives. The objectives of the RFP are twofold: 1) Advance the competitive position of regionally targeted industry clusters through workforce and economic development partnerships; and, 2) Increase industry cluster-specific worker training and employment opportunities focused on middle skill jobs. The objectives of this proposal opportunity provide the framework needed by CEC to achieve its objective for Regional Industry Sector Planning.

In partnership with EDD, the CWIB is preparing a Solicitation for Proposal for Green Collar Jobs Training using funding available under the Workforce Investment Act. This grant opportunity is intended to support public/private partnerships which develop demand driven, regionally based training opportunities for occupations in the Green Value Chain. Its purposes are: 1) to utilize the Industry Clusters of Opportunity data or other regional planning data to design demand driven green training programs, 2) to increase worker training and employment opportunities focused on middle skill jobs for a diverse population within the Green Value Chain. CEC views this opportunity as complimentary to the third objective of its workforce development framework: Training and Education Program Development and Delivery, and is exploring the possibility of augmenting the WIA funds with CEC funding where appropriate.

Conclusion

In the near term, the Council will focus on the identified priority items and will continue to assist in identifying and linking green collar job opportunities with workforce development training opportunities and encourage the growth of regional collaborations supporting the green economic sector as it develops throughout the state. It will also persist in identifying funding resources and leveraging opportunities, making recommendations on how collaborative investments may increase California's green competitive edge. The Council has been presented a variety of information and made aware of many issues surrounding the emergence of this segment of California's economy. It is rapidly developing an excellent knowledge base which will serve as a critical foundation as it begins to craft an effective workforce development strategy in support of the emerging green economy. The work of the Council is buoyed by the infusion of funds from the federal American Recovery and Reinvestment Act and other state and national Green program priorities all focused on providing a well prepared workforce ready to meet the demands of businesses throughout the state

Green Collar Jobs Council Membership Roster	
Barry Sedlik ** Chair Chief Administration Officer Titan Group El Monte, CA	Doug Hoffner, Acting Secretary Labor and Workforce Development Agency (LWDA) Sacramento, CA
Jamil Dada, Senior Financial Manager Provident Bank Riverside, CA	Marty Keller, Director Office of the Small Business Advocate Governor's Office of Planning & Research Sacramento, CA
Bob Balgenorth, President State Building and Construction Trades Council of California Sacramento, CA	Stewart Knox, Chair California Workforce Association Yuba City, CA
The Honorable Karen Bass Speaker /District 47 California State Assembly District 47 V. Manuel Perez Assemblymember/80 th District State Capitol, Sacramento, CA	Brian McMahon, Director California Employment and Training Panel Sacramento, CA
Kim Belshé, Secretary California Health and Human Services Agency Sacramento, CA	The Honorable Jack O'Connell State Superintendent of Public Instruction Sacramento, CA
Norris Bishton, Attorney NOARUS Auto Group Los Angeles, CA	Art Pulaski, Executive Secretary/Treasurer California Labor Federation, AFL-CIO Oakland, CA
Dale Bonner, Secretary Business, Transportation and Housing Agency Sacramento, CA	Timothy Simon, Commissioner California Public Utilities Commission San Francisco, CA
Karen Douglas, Commissioner California Energy Commission Sacramento, CA	Jack Scott, Chancellor California Community Colleges Sacramento, CA
The Honorable Denise Ducheny Senator 40 th District California State Senate	The Honorable Sandré Swanson Assembly Member District 16 California State Assembly
James Goldstene, Director Air Resources Board Sacramento, CA	Audrey Taylor, President/ CEO Chabin Concepts, Inc. Chico, CA
Randall Hernandez, Sr. V.P/Sr. Public Policy Executive Bank of America Foundation Long Beach, CA	Willie Washington, Consultant California Manufacturers & Technology Association Sacramento, CA

LOCAL WORKFORCE INVESTMENT BOARDS INVOLVEMENT IN GREEN JOBS INITIATIVES

Working Draft

WORKFORCE INVESTMENT BOARDS	COMMENTS
Anaheim WIB	<ul style="list-style-type: none"> Planning to co-host an Energy/Environment Industry Forum in partnership with Santa Ana and Orange County WIBs.
Alameda County WIB	<ul style="list-style-type: none"> Actively involved in the East Bay Green Academy Planning Initiative, which includes an East Bay Green Energy Pathways Proposal. This is a public/private and academic partnership that will serve both Alameda and Contra Costa Counties. Participating in the “Green Tech Cluster” that is currently developing an appropriate workforce development strategy that will simultaneously meet industry needs and address the region’s social and environment goals. Aligning workforce and economic development goals of the partner cities in the East Bay Green Corridor (Berkeley, Emeryville, Oakland, Richmond) w/ the East Bay Green Academy and Green Tech Cluster planning.
Contra Costa County WIB	<ul style="list-style-type: none"> Attending meetings with the larger Bay Area region water district supervisors. Helping coordinate a regional meeting in May with corresponding WIBS and water districts to begin mapping out strategies to address workforce needs. Collecting data specific to when and how big the need will be for operators for their districts. Shortage means potential health and safety issues for the public water system. Clearly green and urgent. All WIBs in the area will convene in May to hear the scope of the issues and to design a response to begin addressing this regional and pressing issue. The Workforce Development Board, in partnership with EastBay MUD is coordinating this discussion.
Foothill WIB	<ul style="list-style-type: none"> Having regional meetings on Green Jobs. All the WIBs in LA County are participating or committed to participate.
Fresno WIB	<ul style="list-style-type: none"> Participating with all the members of the Central Valley Workforce Collaborative, who have adopted Renewable Energy as one of five regional sectors we will be focusing on under the California Partnership for the San Joaquin Valley.
Golden Sierra WIB	<ul style="list-style-type: none"> Joined with Sacramento to request WIA 15% funds to retrain residential construction workers in a variety of clean energy skills. Partner with SETA, Valley Vision and other regional and local governments to sponsor regional green/clean energy roundtables across LWIA boundaries. Participation in the regional Clean Air Partnership Participation in the regional Clean Energy Action Team Partnership with Sierra College to obtain \$468,000 for photovoltaic curriculum development programs in addition to training in solar technology for building inspectors (funded through chancellor's office).
Humboldt Country WIB	<ul style="list-style-type: none"> Working with NoRTEC and NCCC on numerous initiatives that include green jobs, bio-fuel, wind energy, solar, almost anything in alternative fuels.

WORKFORCE INVESTMENT BOARDS	COMMENTS
Imperial County Employment & Training	<ul style="list-style-type: none"> • Currently meeting with a variety of officials and company executives regarding the creation and expansion of green jobs in the County. • An Alternative Energy Summit was held last week and people from different parts of the Country and some foreign countries attended. Concentrating on Geothermal, which is already present and active in Imperial County, Solar Power, Wind Power and Ethanol Production. • Involved in both the economic development aspects and workforce preparation. Currently work with Geothermal in providing Workforce information and referrals and within the next year, plan to be seriously engaged in providing training and support to both the solar and ethanol entities, which are in the process of locating in Imperial County.
Kern, Inyo, Mono WIB	<ul style="list-style-type: none"> • Participating with all the members of the Central Valley Workforce Collaborative, who have adopted Renewable Energy as one of five regional sectors we will be focusing on under the California Partnership for the San Joaquin Valley.
Kings County Job Training Office	<ul style="list-style-type: none"> • Participating with all the members of the Central Valley Workforce Collaborative (CCWC), who have adopted Renewable Energy as one of five regional sectors we will be focusing on under the California Partnership for the San Joaquin Valley.
City of Los Angeles WIB	<ul style="list-style-type: none"> • Attending regional meetings on Green Jobs held by South Bay. All the WIBs in LA County are participating or committed to participate. • The City of LA will be releasing an RFP on May 7th regarding Green Technology. • The City has conducted a survey of City buildings to retro and signed a Green Building Ordinance on 4/22/08 to promote green building practices in the private sector. The ordinance would require reduction of the City's carbon emissions by more than 80,000 tons by 2012. • The City has developed an aggressive municipal green building plan. The plan calls for the City to reduce its own carbon footprint by 35% by 2030. City buildings will be retrofitted as part of this plan. It is possible that savings from the retrofitting may be used for workforce development related to these projects.
Los Angeles County WIB	<ul style="list-style-type: none"> • Attending regional meetings on Green Jobs held by South Bay. All the WIBs in LA County are participating or committed to participate. • The California Green Jobs Training and Employment Coalition is a demand-driven alliance of workforce development entities guided by input from private and public stakeholders in the green movement. The Coalition's primary goal is to build a clean technology, livable-wage workforce that responds to industry demands and supports economic development and growth in our communities, in our region and in our state. The Coalition is made up of Los Angeles Workforce Investment Area WIBS, including Los Angeles County WIB, Los Angeles City WIB, South Bay WIB, Verdugo WIB, Foothill WIB as well as EDD, Community College representatives and others. • According to a recent study commissioned by the City of Los Angeles Workforce Investment Board, among the top demand occupations in Los

WORKFORCE INVESTMENT BOARDS	COMMENTS
	<p>Angeles' green technology sector are electricians, plumbers and pipe-fitters, carpenters, construction laborers and general and operations managers. Further, the largest "middle-skill" occupations in Los Angeles' green technology industries requiring an average of 1.5 years or less of training and education, include: electricians; architectural drafters; plumbers and pipefitters; sheet metal workers; carpenters; bookkeepers and auditors; secretaries; general helpers-electricians; construction laborers; office clerks—general; and refuse and recyclable collectors.</p> <ul style="list-style-type: none"> • In Southern California, mounting anecdotal evidence, which includes large-scale solar panel installation projects by major public utilities, suggests that demand for Photovoltaic Installers will soon accelerate. • Based on first two meetings, it is clear that a strategic plan for the Coalition is needed and that certain aspects of the effort require focused work by smaller groups. • The Coalition scheduled a half-day session for all interested Coalition members in which the group will have an opportunity to draft an action plan that will provide direction to the Coalition's immediate and future efforts.
Madera County WIB	<ul style="list-style-type: none"> • Participating with all the members of the Central Valley Workforce Collaborative, who have adopted Renewable Energy as one of five regional sectors we will be focusing on under the California Partnership for the San Joaquin Valley. • Adopted Renewable Energy as one of their identified industries/sectors, however, is in the formative stage of having discussions specific to green jobs.
Marin County WIB	<ul style="list-style-type: none"> • Working on green jobs, mainly around solar panel installation training.
Mendocino County WIB	<ul style="list-style-type: none"> • No current activity
Merced WIB	<ul style="list-style-type: none"> • Alternative energy and green job skills have been identified as a focus by the WIB. Alternative energy (solar) is an emerging sector in Merced and green job skills are evident in all sectors adopted by the WIB. • Participating with all the members of the Central Valley Workforce Collaborative, who have adopted Renewable Energy as one of five regional sectors we will be focusing on under the California Partnership for the San Joaquin Valley.
Monterey County WIB	<ul style="list-style-type: none"> • No current activity
Mother Lode WIB	<ul style="list-style-type: none"> • Participating with all the members of the Central Valley Workforce Collaborative, who have adopted Renewable Energy as one of five regional sectors we will be focusing on under the California Partnership for the San Joaquin Valley.
Napa Valley WIB	<ul style="list-style-type: none"> • Participating in the Sustainable Napa County Initiative - The WIB Executive Director serves on the leadership team of a community wide group of private and public executives that are trying to reduce the carbon footprint of Napa County. • One strategy is to build an economy that leverages the high level of investment into green technology; and to deliver a workforce for potential green companies. • The WIB Director serves as the Co-Chair of the Education/Workforce Subcommittee. • Through its participation in this leadership group, the WIB will continue to

WORKFORCE INVESTMENT BOARDS	COMMENTS
	leverage the expertise of key community stakeholders from NASA, Environmental Protection Agency, local Foundations, County and city officials, Napa Valley College and others as it explores the potential for a “green collar” workforce in Napa County.
North Central Counties Consortium (NCCC)	<ul style="list-style-type: none"> • Working with NCCC and Humboldt on numerous initiatives that include green jobs, bio-fuel, wind energy, solar, almost anything in alternative fuels. • NoRTEC, and NCCC through WIRED has also worked with three community colleges to develop trainings along the lines of Hybrid cars, bio diesel and wind energy farms. Also currently in talks with PG&E for specialized trainings. • Invenergy is located in the Lassen area and is planning a large wind energy farm. In addition to that the local • Our One-Stop is working with the college to design curriculum with the industry.
North Valley Job Training Consortium (NOVA)	<ul style="list-style-type: none"> • Mike Curran is a founding member of the SolarTech Initiative, the partnership has: <ul style="list-style-type: none"> *Helped design and submit an Industry Driven Regional Collaborative grant awarded to Foothill-DeAnza Community College for \$645K in October 2007. DeAnza project managing activities with actual training taking place at San Jose City College and Cabrillo College in Santa Cruz beginning in Spring 2008, with Ohlone College bringing the course to their campus Fall 2008. Instruction was initiated with a curriculum that was developed with industry input and is geared toward students being prepared to take the North American Board of Certified Energy Practitioners entry-level certification. *Among the three colleges offering training, five classes of instruction/lab have taken place with a total of more than 130 students trained. All classes have had an extensive waiting list. Exploration of a straight lecture class is being considered by the Community College since many students are not specifically looking to be an installer but hungry for the knowledge to enter the Solar Industry. *Following the curriculum portion, students can have the option of participating in an employer paid internship opportunity. NOVA is working with the Silicon Valley Leadership Group to contact local Solar Installer companies for internship positions and is coordinating the referral process/matching system between employers and students. *Solar IDRC grant ends June 2009 as will the work experience/internship opportunity for students however, the Solar Installation classes will continue at the Community College. A collaboration with Bayside Solutions, a staffing firm with a green division, has been initiated as an option for student placements and to sustain the placement component after the grant ends. Additionally volunteer placements with Habitat for Humanity and Grid Alternatives is being explored. *Web-based internship coordination deliverables include: Employer Commitment Form, Employer Handbook, Student Profile Internship Registration Form, Student Intern Handbook, Employer Evaluation form (post internship). *Facilitated meetings and coordinated with local One-Stops including: NOVA, Work2Future, Santa Cruz WIB, Alameda County WIB. Produced web accessible marketing information materials for One-Stops such as: Profile of PV

WORKFORCE INVESTMENT BOARDS	COMMENTS
	<p>Solar Installer; PV Solar Installer Self-Assessment; NABCEP information; community college training course information; Bay Region Solar Industry Workforce Study by Economic and Workforce Development through California Community Colleges.</p> <ul style="list-style-type: none"> • Clean Energy and Green Building Careers in Silicon Valley: NOVA will host a forum highlighting 40+ occupations in Clean Energy and Green Building Careers in Silicon Valley. The majority of the occupations highlighted in Clean Energy are in the Solar Industry.
Northern Rural Training and Employment Consortium (NORTEC)	<ul style="list-style-type: none"> • Working on numerous initiatives with NCCC and Humboldt that include green jobs, bio-fuel, wind energy, solar, almost anything in alternative fuels. • Both Tehama and Shasta Counties have partnered with Shasta College on two grant applications through the Chancellor's Office: Building Green Industry Driven Regional Collaborative to create an emerging technologies project in the field of green construction technology (\$431,000 for a two-year grant). • Renewable Energy Project (IDRC) to develop programs for training in emerging technologies relating to wind generation and photovoltaics. Both grants have been approved, but funding not confirmed. • AFWD is working with Renegy to assist with workforce development, to include the development of a job-training program in conjunction with STEM and the development of education programs to prep people for high skilled jobs within the renewable energy field. A project that is being discussed is training the company's workforce after hire, with Lassen Community College establishing continuing education classes. AFWD, in conjunction with the STEM project, would provide the training for employees after hire. • AFWD would monitor a training plan that the renewable energy company implements. Since Renegy is planning to re open the facility in just a few months, looking at post hire training, as opposed to pre hire training. A second STEM project involves internships and on the job training programs, where AFWD will work with Renegy to assist with the placement of youth (and other) clients into internships or on the job trainings to facilitate the training of the workforce. AFWD would develop and monitor the training program and the company would provide the on-site training. In addition, Renegy expressed initial interest in coming to the table and participating in the development of a college curriculum for the renewable energy industry.
Oakland Workforce Investment Board	<ul style="list-style-type: none"> • Participating in the "Green Tech Cluster" that is currently developing an appropriate workforce development strategy that will simultaneously meet industry needs and address the region's social and environment goals. • Aligning workforce and economic development goals of the partner cities in the East Bay Green Corridor (Berkeley, Emeryville, Oakland, Richmond) w/ the East Bay Green Academy and Green Tech Cluster planning. • The following website contains a report with additional information. Pages 23-26 specifically outline Oakland's green jobs priorities, strategies and initiatives. http://www.oaklandpartnership.com/reports/economy.asp
Orange County WIB	<ul style="list-style-type: none"> • Pending Rapid Response Special Project application entitled "TURNING ORANGE COUNTY GREEN." The project is to provide Orange County businesses with better access to training and information on growing green industries,

WORKFORCE INVESTMENT BOARDS	COMMENTS
	<p>cleaner technologies and greener ways of doing business. The project joins the increasing nationwide focus on energy and environment issues which includes the implementation of green technologies.</p> <ul style="list-style-type: none"> • The WIB will also be co-hosting an Energy/Environment Industry Forum in partnership with Santa Ana and Anaheim WIBs.
Pacific Gateway Workforce Investment Network	<ul style="list-style-type: none"> • Attending regional meetings on Green Jobs held by South Bay. All the WIBs in LA County are participating or committed to participate. • Pacific Gateway has a partnership (funded April 2008) with Long Beach Community College District under an Industry Driven Regional Collaborative to train and place workers through a Liquefied Natural Gas (LNG)/Green Diesel Heavy Truck repair grant. • Ongoing project with the Environmental Protection Agency to train and place workers in remediation of soil and handling of waste.
Richmond Works	<ul style="list-style-type: none"> • Actively advocating for and supporting green-collar training for nearly one year. Our RichmondBUILD pre-apprenticeship construction skills training program includes a solar installation component that was developed and implemented in partnership with Solar Richmond, Solar Living Institute, & GRID Alternatives and, to date, several of our graduates are now working as solar installers and making a livable wage. • Training program provides hands-on instruction and it also includes a "live" installation of a solar system for a low-income homeowner in our City. The solar installation system is paid for by our housing department's HOME/CDBG program. The program was implemented to help curtail youth violence.
Riverside County WIB	<ul style="list-style-type: none"> • Launched a Regional Clusters of Opportunity initiative with San Bernardino. The Green Industry is one of the clusters to be explored. Also involved with the Green Valley Initiative spearheaded by a separate organization.
Sacramento WIB	<ul style="list-style-type: none"> • Initiative with American River College, Holt, Sacramento Regional Transit, California Labor Federation, and County Office of Education to start up a Clean Diesel mechanic program at the college. Funding from WIA, Chancellors office, and employers. • Part of Clean Energy Action Team, a regional effort called Partnership for Prosperity to position Sacramento as the premier region in the nation for high-value, clean technology companies and elevate the region's visibility both nationally and internationally. • Lead agency in recruiting and screening qualified candidates for OptiSolar, Inc., one of the largest photo-voltaic panel manufacturing plants in the world, which recently signed a lease for space to open a 600,000 square foot solar panel manufacturing plant in Sacramento County at McClellan Park. OptiSolar will create over 500 jobs over the next three years at the manufacturing plant. • Initiative with Community Resource Project, Sacramento Metropolitan Utility District, American River College, California Community Services and Development Department (CSD) to implement California Solar Initiative in the region with the goal of increasing the number of low-income homes using solar power and developing a pipeline for Solar Energy Systems Installers. • The City of Sacramento will receive funding (\$200,000) from the US Department of Energy to advance solar technologies city wide and has been

WORKFORCE INVESTMENT BOARDS	COMMENTS
	<p>named by DOE as one of 12 Solar American Cities.</p> <ul style="list-style-type: none"> Sierra College was awarded \$470,000 (from the State Chancellor's Office) for a photovoltaic Installer Training to educate future "green collar" workforce for solar companies, contractors and local government in the region. In addition, American River College is also beginning a Solar Energy Technician training. Golden Sierra and Sacramento have joined together to request WIA 15% funds to retrain residential construction workers in a variety of clean energy skills.
San Benito County WIB	<ul style="list-style-type: none"> No current activity
City of San Bernardino WIB	<ul style="list-style-type: none"> Launched a Regional Clusters of Opportunity initiative with Riverside and San Bernardino County WIBs. The Green Industry is one of the clusters.
San Bernardino County WIB	<ul style="list-style-type: none"> Launched a Regional Clusters of Opportunity initiative with Riverside and San Bernardino City WIBs. The Green Industry is one of the clusters.
San Diego Workforce Partnership, Inc.	<ul style="list-style-type: none"> Participating in regional Cleantech collaborative hosted by the San Diego Regional Economic Development Corporation and the City of San Diego that is working to create a green cluster of industries in Agriculture, Air and Environment, Materials, Energy, Manufacturing, Recycling and Waste, Transportation, and Water and Wastewater. Conducting research with Cleantech companies to determine whether or not San Diego has a true green sector. Based on responses, employers will be interviewed further to identify future employment needs, and/or skills gap training and retraining. Collaborating with the Center for Sustainable Energy to develop a customized training for GeoThermal installers.
San Francisco WIB	<ul style="list-style-type: none"> Developing workforce strategies to target green collar jobs in green construction, solar installation, greening/landscaping, energy efficiency, and recycling.
San Joaquin WIB	<ul style="list-style-type: none"> Participating with all the members of the Central Valley Workforce Collaborative (CCWC), who have adopted Renewable Energy as one of five regional sectors we will be focusing on under the California Partnership for the San Joaquin Valley.
San Luis Obispo County WIB	<ul style="list-style-type: none"> Working with the California Conservation Corps on training for their corps members in working with tree planting and habitat restoration.
San Mateo WIB	<ul style="list-style-type: none"> Approval of a resolution on April 22, 2008, by the San Mateo County Board of Supervisors calling for a county wide summit to support and develop green collar jobs. This initiative was developed in collaboration with the San Mateo Workforce Investment Board, the Human Services Agency, and workforce community partners. The Workforce Investment Board and the One Stops will have a leading role in supporting this initiative and executing on the plan. SolarCity is a leading solar employer in San Mateo County. This employer partner has worked closely with our community colleges and has developed several exciting new resources to support the workforce. SolarCity has received approval for a federal apprenticeship training program, which they have built. SolarCity has worked with the community colleges to assist in the development of curriculum to train the workforce for solar related jobs.

WORKFORCE INVESTMENT BOARDS	COMMENTS
	<ul style="list-style-type: none"> • JobTrain is a One Stop Operator and one of the leading workforce community partners in San Mateo County. They have recently launched a new solar installation training course and are already training clients in this exciting new course. • San Mateo's One Stop system (PeninsulaWorks) has been and continues to actively screen and refer clients to green technology -related employers, particularly solar employers.
Santa Ana WIB	<ul style="list-style-type: none"> • Planning to co-cost an Energy/Environment Industry Forum in partnership with Orange County and Anaheim WIBs.
Santa Barbara County WIB	<ul style="list-style-type: none"> • Posting "Green2Gold" notices to all WIB members from a former WIB member who is active in the Green2Gold movement.
Santa Cruz County WIB	<ul style="list-style-type: none"> • Facilitated meetings with NOVA, San Jose Workforce Board/Work2Future/IBT and San Jose City College, as well as Santa Cruz Workforce Investment Board and Cabrillo College to market solar program for dislocated worker population and underemployed/working poor. • Created a listing of locally-approved ETPL vendors that provide training in green careers • Participated in NOVA's community forum on Clean Energy and Green Building Careers • Provided a presentation to the Santa Cruz Youth Council on the Santa Cruz County Office of Education's newly created Natural Bridges Green Career Center, which utilizes CTE funding to provide classes in sustainable agriculture, solar technology, green building techniques and environmental protection.
Silicon Valley WIN-Work 2 Future	<ul style="list-style-type: none"> • Received ETP \$ to support training of 200 NanoSolar employees • Will receive \$500K of CDBG funds to train approx. 60 adults in careers in clean and green technology. Program start is July 1, 2008 • Facilitated meetings with NOVA, San Jose Workforce Board/Work2Future(W2F)/IBT and San Jose City College, Santa Cruz Workforce Board and Cabrillo College to market Solar program for dislocated worker population, and underemployed/working poor. • At our flagship One-Stop, the International Association of Nanotechnology has a dry lab and they are training people for careers in clean and green. They also host quarterly forums with venture capitalists, businesses, and research and trade association • Beginning July 1, a consortium of solar energy companies, SolarTec, will locate their administrative offices to our flagship one-stop. SolarTec is similar to SemiTec is that is will serve as the industry hub to develop standards, testing protocols, federal/state policies, training curriculum and serve as a catalyst for research and development and connections with the venture capitalist community.
Solano County WIB	<ul style="list-style-type: none"> • Working with WIBs from Sonoma, Marin, and Napa (North Bay Employment Connection) to identify green job initiatives including solar, wind and geothermal. • Last year the NBEC had a retreat with the four counties, WIB leadership, regional community colleges and others and identified green industries as the targeted industry sector for research and development and dialogue with

WORKFORCE INVESTMENT BOARDS	COMMENTS
	<p>employers and education partners to determine curricula already in place and what needs to be developed.</p> <ul style="list-style-type: none"> • Solano is well positioned as a principal location for electric generation for wind power. • An electric car manufacturer is currently considering locating in the county.
Sonoma County WIB	<ul style="list-style-type: none"> • Sonoma County has established a group of stakeholders to start a collaborative partnership in energy-related workforce issues. Partners include K-12 (the Superintendent of Schools), Santa Rosa Junior College, Sonoma State University, the County of Sonoma, the Water Agency, the WIB, PG&E, and others. We are committed to work together to improve the energy workforce infrastructure of Sonoma County, with more meetings in the future to partner on specific projects. • Partnering with the Sonoma County Economic Development Board, the Sonoma Innovation Council which is looking at many renewable resources, including energy, water and workforce. • The Sonoma County WIB is working with WIBs from Solano, Marin, and Napa (North Bay Employment Connection) to identify green job initiatives including solar, wind and geothermal.
South Bay WIB	<ul style="list-style-type: none"> • Holding regional meetings on Green Jobs. All the WIBs in LA County are participating or committed to participate. • Organizing the California Green Jobs Training and Employment Coalition (Coalition), an alliance of key California workforce development entities and public and private industry leaders to develop human capital for Green Jobs and a green future. • The Coalition is finding that included among the top demand occupations in Los Angeles' green technology sector are electricians, plumbers and pipe fitters, carpenters, construction laborers and general and operations managers. Also know that the largest middle-skill occupations in Los Angeles' green technology industries requiring an average of 1.5 years or less of training and education include: <ul style="list-style-type: none"> Electricians Architectural Drafters Plumbers and Pipefitters Sheet Metal Workers Carpenters Bookkeepers and Auditors Secretaries, General Helpers-Electricians Construction Laborers Office Clerks, General Refuse and Recyclable Collectors <p>The Coalition:</p> <ul style="list-style-type: none"> • Joining the South Bay Workforce Investment Board and the Los Angeles-Ventura Workforce Services Division of the California EDD are the following local workforce investment boards in Los Angeles County: <ul style="list-style-type: none"> The City of Los Angeles Workforce Investment Board The County of Los Angeles Workforce Investment Board

WORKFORCE INVESTMENT BOARDS	COMMENTS
	<p>The Verdugo Workforce Investment Board The Foothill Workforce Investment Board The SELACO Workforce Investment Board Pacific Gateway Workforce Investment Network</p> <ul style="list-style-type: none"> • Southern California Edison (SCE) and the Los Angeles County Economic Development Corporation have already attended an initial Coalition meeting and have expressed interest in participating as lead members. In addition to the East Los Angeles Skill Center, which is a part of the Los Angeles Unified School District, the growing list of participating community colleges includes El Camino College, Los Angeles Southwest College, Los Angeles Harbor College, Santa Monica College and Rio Hondo College. • Other public and private industry partners expected to join the Coalition as members of its “Industry Intelligence Group” include, but are not limited to: <ul style="list-style-type: none"> The Los Angeles Department of Water and Power The Metropolitan Transportation Authority (MTA) The Port of Los Angeles Los Angeles World Airports South Coast Air Quality Management District Sempra Energy The Gas Company West Basin Water District BP (British Petroleum) • The Coalition will serve as a membership-wide umbrella to support the pursuit and acquisition of public and private funding for large-scale Green Jobs initiatives in California, and as an umbrella for sub-sets of partners working on smaller, localized or need-specific projects. • The Coalition members are currently forming work-groups to focus on a variety of areas. • A progress report and proposal for funding are being developed for the honorable Hilda Solis, Congressional Representative, 32nd District and co-author of the federal Green Jobs Act of 2007, to launch and support the Coalition's initial activities.
South East Los Angeles County WIB	<ul style="list-style-type: none"> • Attending regional meetings on Green Jobs held by South Bay. All the WIBs in LA County are participating or committed to participate.
Stanislaus County Department of Employment and Training	<ul style="list-style-type: none"> • Participating with all the members of the Central Valley Workforce Collaborative , who have adopted Renewable Energy as one of five regional sectors we will be focusing on under the California Partnership for the San Joaquin Valley.
Tulare County WIB Inc.	<ul style="list-style-type: none"> • Participating with all the members of the Central Valley Workforce Collaborative , who have adopted Renewable Energy as one of five regional sectors we will be focusing on under the California Partnership for the San Joaquin Valley.
Ventura County WIB	<ul style="list-style-type: none"> • Participating in discussions with the Economic Development Colaborative.
Verdugo WIB	<ul style="list-style-type: none"> • Working with the 6 other WIBs and some community colleges on a green jobs initiative for L.A., led by South Bay WIB.
Yolo County WIB	<ul style="list-style-type: none"> • No current activity

CA Workforce Investment Board

Planning Unit: Green Jobs

Fiscal Year: 2009

ONE
PAGE
PLAN

Barbara Halsey, Executive Director

Last Updated: 02/09/2009



vision

Over the next 18 to 24 months the GCJC will identify and facilitate the development of the framework, funding, strategies, programs, policies, partnerships and opportunities necessary to address the need for a highly skilled and well-trained workforce in support of California's green businesses and economy. Through its work, the council will serve as a catalyst for the creation of sustainable regional sector strategies that will be managed through regional partnerships.



Catalyze California's Green Economy... Facilitate Green Job Creation!



objectives

- Generate ____ jobs that support the green economy over the next 18 months
- Increase private/public funding supporting green job creation from \$__ to \$__
- Increase the green share of the State Domestic Product from \$__ to \$__
- Increase number of students completing green training programs from ____ to ____



strategies

- Neutral broker: guide discovery, advocacy, investments, direction & accountability
- Serve as statewide hub & nat'l model: cultivating funded Green Workforce Initiatives
- Strengthen reg. competitiveness by incentivizing data driven planning & measure results
- Ensure creation/sustainability of sector strategy by fostering regional partnerships.
- Form strat alliances with business to understand their green workforce needs
- Increase educ pathways that lead low wage workers to well-paying jobs.
- Ensure entrepreneurs receive training necessary to create/compete in green economy.



action plans

- Data Collection/Baseline Analysis:
- Sector Strategy:
- Strategic Alliances:
- Funding:
- Communication/Outreach:
- Advocacy:
- Technology:
- Entrepreneurship:

Attachment 4

TIMELINE OF ACTIONS

DRAFT

	SECTOR STRATEGIES	COMMUNICATION OUTREACH	TECHNOLOGY	GREEN TRAINING PROGRAMS	DATA COLLECTION	STRATEGIC ALLIANCES	FUNDING	ENTREPREN.	POLICY
10 days	Identify sectors to concentrate efforts Send draft AB 3018 Annual Report to Council members (CWIB, March 13)			Inventory all existing training programs by occupations (CDE, CCC, CSU, ETP, Labor)	Compile one matrix of green collar jobs (from EDD/LMID 22 jobs 2006-2016 Data already done)	Map or flowchart players and stimulus funding (incl. cross links and number of jobs, related to funding inventory)	Complete inventory of all stimulus funds (amounts, funding cycles, deadlines)	NO	TIME FRAME FOR THESE ACTIONS Create policy agenda Identify deadlines of current regulations / legislation
30 days	Release Regional Economic Recovery(BTH, April 1) Submit AB 3018 Annual Report to the Legislature (CWIB, April 1) Develop statewide model for weatherization	Create calendar of events matrix including conferences (Approx. 30-60 days) Participate in conferences (i.e., data collection, panelists, presenters, etc.)		Identify gaps in current programs (best we can do in 30 days and then ongoing)	Analyze where and how jobs will be created as a result of the stimulus funds (best we can do in 30 days and then ongoing)	Inventory of pre-existing resources <ul style="list-style-type: none"> Information Funding sources How will local WIBs target stimulus funds Prepare	Create a team for stimulus funding grants a		Determine restrictions on stimulus funds Determine who provides oversight of programs / funds? Define standards for investments
60 days				Identify successful training programs to concentrate efforts and link to economic data (CDE?)	Analysis the impact of AB 32 on jobs (CPUC 60 days, UC Berkeley has done modeling)		matrix of energy incentives		

SOC Code	Occupational Title	Annual Average Employment		Top Industries Employing Selected Occupations		
		2006	2016			
17-1011	Architects, Except Landscape	15,700	16,900	Architectural, Engineering, and Related Services	Management of Companies and Enterprises	Crop Production
51-2092	Assemblers (Team)	97,700	104,500	Employment Services	Medical Equipment and Supplies Manufacturing	Semiconductor and Other Electronic Component Manufacturing
49-3023	Automotive Service Technicians and Mechanics	79,000	90,200	Automobile Dealers	Automotive Repair and Maintenance	Automotive Parts, Accessories, and Tire Stores
19-4021	Biological Technicians	10,400	13,500	Scientific Research and Development Services	Colleges, Universities, and Professional Schools	Federal Government
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	28,500	32,200	Automotive Repair and Maintenance	Local Government	General Freight Trucking
47-2031	Carpenters	210,000	235,700	Residential Building Construction	Foundation, Structure, and Building Exterior Contractors	Building Finishing Contractors
19-4031	Chemical Technicians	5,400	6,300	Architectural, Engineering, and Related Services	Pharmaceutical and Medicine Manufacturing	Scientific Research and Development Services
11-9021	Construction Managers	47,100	55,200	Nonresidential Building Construction	Residential Building Construction	Building Equipment Contractors
13-1051	Cost Estimators	25,600	31,200	Building Equipment Contractors	Automotive Repair and Maintenance	Building Finishing Contractors
17-2071	Electrical Engineers	19,600	20,700	Semiconductor and Other Electronic Component Manufacturing	Architectural, Engineering, and Related Services	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
47-2111	Electricians	68,300	75,300	Building Equipment Contractors	Local Government	Nonresidential Building Construction
17-2081	Environmental Engineers	4,800	6,000	Architectural, Engineering, and Related Services	Local Government	Management, Scientific, and Technical Consulting Services
47-4041	Hazardous Materials Removal Workers	5,000	5,300	Waste Management and Remediation Services	Other Specialty Trade Contractors	Architectural, Engineering, and Related Services
49-9021	Heating and Air Conditioning Technicians and Installers	19,700	22,200	Building Equipment Contractors	Commercial and Industrial Machinery and Equipment Repair and Maintenance	Hardware, and Plumbing and Heating Equipment and Supplies Merchant wholesalers
47-2131	Insulation Workers, Floor, Ceiling, and Wall (Weatherization Workers)	3,000	3,200	Building Finishing Contractors	Nonresidential Building Construction	Ship and Boat Building
13-1111	Management Analysts	89,100	105,900	Management, Scientific, and Technical Consulting Services	Local Government	Colleges, Universities, and Professional Schools
17-2141	Mechanical Engineers	24,000	25,800	Architectural, Engineering, and Related Services	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing	Scientific Research and Development Services
47-2152	Plumbers, Pipefitters, and Steamfitters	56,000	62,900	Building Equipment Contractors	Local Government	Utility System Construction
53-7081	Refuse and Recyclable Material Collectors	14,300	15,300	Waste Management and Remediation Services	Local Government	Employment Services
47-2181	Roofers	24,800	28,800	Foundation, Structure, and Building Exterior Contractors	Employment Services	Residential Building Construction
19-3051	Urban and Regional Planners (Sustainability Planners)	4,500	5,400	Local Government	Architectural, Engineering, and Related Services	Management, Scientific, and Technical Consulting Services
25-1194	Vocational Education Teachers, Postsecondary	11,800	15,400	Technical and Trade Schools	Junior Colleges	Local Government
	March 2006 Benchmark-Table includes the self-employed, unpaid family workers, private household workers, and farm employment.					

Occupations Involved in Green Activities with Reskilling Opportunities

(Occupational Data Represents all Industries)

[illegible]